

Size: 6,500 acres
Mission: House the Army Armaments Research, Development, and Engineering Command
HRS Score: 42.92; placed on NPL in February 1990
IAG Status: IAG signed in July 1991
Contaminants: VOCs, explosives, and heavy metals
Media Affected: Groundwater, surface water, sediment, and soil
Funding to Date: \$70.6 million
Estimated Cost to Completion (Completion Year): \$38.3 million (FY2009)
Final Remedy in Place or Response Complete Date for All Sites: FY2009



Rockaway Township, New Jersey

Restoration Background

In 1880, Dover Powder Depot, now known as Picatinny Arsenal, was established to store the gunpowder needed to manufacture ammunition. From 1898 to the early 1970s, the installation manufactured explosives, propellants, and ammunition. It now houses the Army Research, Development, and Engineering Command.

Regulators performed a Preliminary Assessment and Site Inspection (SI) in FY87. In FY91, the installation identified 156 sites, including a burning ground, landfills, underground storage tanks (USTs), former production areas, and former testing sites. Releases of volatile organic compounds (VOCs), explosives, and heavy metals from these sites have contaminated groundwater, surface water, sediment, and soil.

Remedial Investigation and Feasibility Study (RI/FS) activities began in FY91. The RI/FS divided the installation into 16 areas and organized the investigation in three phases. The installation conducted an additional RI for the burning ground in FY94. Interim Actions included removing USTs, installing a groundwater extraction and treatment system, and removing drums from a landfill.

In FY95, the installation conducted several Interim Actions, including cleanup of lead-contaminated soil, operation of a groundwater pump-and-treat system for an on-site trichloroethene (TCE) plume, and installation of a drinking water line to 12 nearby residences. The FS for the burning ground and the Phase I draft RI report were submitted to the regulatory agencies. The installation also began Phase II RI activities.

In FY96, the installation's technical review committee was converted to a Restoration Advisory Board (RAB). The Army

collected data from 77 sites to determine the sites' relative risk category. It also approved site investigation work plans for fast-track collection of relative risk data for 37 sites.

In FY97 and FY98, the regulators received and approved the revised Phase I RI report. The Army completed RI fieldwork, the draft Phase II report, and relative risk scoring of all sites. The installation commissioned the U.S. Geological Survey to conduct studies to support natural attenuation of the TCE plume in Area D. The U.S. Army Corps of Engineers awarded funds for a Removal Action at three sites and capping of the Post Farm Landfill. The Phase II Ecological Risk work plan was approved by the regulators and implemented by Corps contractors. A revised risk assessment for Site 20/24 was performed and submitted to the regulators; this risk assessment was used to determine that no Removal Action was necessary. Various investigative mini-work plans and reports were submitted and approved by the regulators.

FY98 Restoration Progress

The installation notified regulators that it would develop a new risk assessment for the burning ground that was consistent with policies. The installation did not complete the two planned Removal Actions. The Engineering Evaluation and Cost Analysis for 20/24 was withheld because there was not an unacceptable risk, and the NJDEP standards for soil are not applicable as determined by Army legal staff.

The installation has been working with regulators to complete incremental stages of the FSs for Area D groundwater, Green Pond Brook, and Bear Swamp Brook. The installation did not complete the FS for the sanitary landfill in the southern part of the arsenal because there was no unacceptable risk and the state

soil standards are not applicable; consequently, the Remedial Design was not completed. The installation completed the Relative Risk Site Evaluation at the two remaining sites and completed geological and hydrogeological studies at the Post Farm Landfill. It has not installed the landfill cap pending other actions. The installation received approval for, and implemented, the Phase III Interim Remedial Action work plan.

The installation procured a contract based on the Technical Assistance for Public Participation program to provide technical support for the RAB. The Agency for Toxic Substances and Disease Registry provided a draft review of public health consultation based on the revised risk assessment for Site 20/24.

Plan of Action

- Obtain No Further Action decisions on appropriate sites based on nonresidential cleanup standards in FY99
- Submit SI work plans for Sites 3, 31, 192, and 199 and a work plan for Site 20/24 Data Report in FY99
- Complete Phase II Ecological Risk Assessment report in FY99
- Complete FSs for Area D Groundwater, Green Pond Brook, and Bear Swamp Brook in FY99
- Complete RI report for Area F and G groundwater in FY99
- Submit reports for the Area E Groundwater FS and Phase III 1A RI in FY00
- Submit Phase II RI report

FY99 FUNDING BY PHASE AND RELATIVE RISK

